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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,690	06/18/2007	Andrew Simon Oldfield	11801-003-999	3033

20583 7590 08/18/2009

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EXAMINER	
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ART UNIT	PAPER NUMBER
1797	

MAIL DATE	DELIVERY MODE
08/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,690	OLDFIELD, ANDREW SIMON	
	Examiner	Art Unit	
	PAMELA WEISS	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-7,9-11 and 15-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-7, 8-11 and 15-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments with respect to claim June 3, 2009 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment. Applicant's arguments do not overcome the cited references for the reasons set forth below.

Claim Rejections - 35 USC § 102/ Claim Rejections - 35 USC § 103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2- 5, 6-7, 9, 16-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kenbeek

(EP 0335013) as evidenced by Marchand et al. (GB1390439) and as evidenced by Croda Product Overview.

Regarding Claims 2 and 16-17:

Kenbeek discloses a base oil (Abstract and P2 L46-47 synthetic lubricant base) and an antiwear additive system comprising an ester (P2 L52-55 polyester additive) which is the reaction product (P3 L50-58 disclosing the reactants and an esterification process) of

(a) at least one polyfunctional alcohol; (P3 L1 glycol, neopentylglycol)

(b) a dimer fatty acid; and (P2 L52-53 and P3 L60-62)

(c) 2-ethyl hexanol P3 L53 (meeting the claimed carbon range of C_5 to C_{24} and C_7 to C_{24}) (P3 L6-11) with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non- polarity index (NPI) NPI = total number of carbon atoms x molecular weight number of carboxylate groups x 100 of at least 500).

Kenbeek discloses the dimer fatty acid is Pripol 1009 (P3 L47-52). Pripol 1009 had a dimer content of 98% meeting the limitation for a dimer content of greater than 94%wt. meeting the claim limitation.

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao,* 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478,

481 (CCPA 1951). Thus the intended use of the composition as an automotive engine oil comprising and an antiwear additive system is not afforded patentable weight since the recitation of an intended use does not impart patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Regarding Claim 3.

Kenbeek discloses the limitations set forth above. Since the optional component 1(c) is not present, no aliphatic dicarboxylic acid having 5 to 18 carbon atoms is required to be present.

Regarding Claim 4.

Kenbeek discloses the limitations set forth above. Kenbeek also discloses an automotive engine oil wherein the polyfunctional alcohol is a polyol of formula R(OH)n where n is an integer which ranges from 1 to 10 and R is a hydrocarbon chain of 2 to 15 carbon atoms where the polyol is of molecular weight in the range from 50 to 650. (P3 L52 neopentyl glycol $C_5H_{12}O_2$ MW 104.15 thus falling within the claimed ranges)

Regarding Claim 6.

Kenbeek discloses the limitations set forth above. Kenbeek discloses the claimed composition. As such, the composition will intrinsically posses the same physical characteristics including the NPI value of at least 900.

Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical

processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

Regarding Claim 7.

Kenbeek discloses the limitations set forth above. Kenbeek also discloses an automotive engine oil wherein the resultant ester has an average molecular weight of at least 3000. (P4 L9 average molecular weight was 5900 for example 2).

Regarding Claim 9.

Kenbeek discloses the limitations set forth above. Kenbeek also discloses n automotive engine oil wherein the antiwear additive system further comprises a phosphorus- containing and/or sulphur- containing antiwear additive. (P3 L40-43 wherein additional adjuncts are added such as antioxidants, anticorrosion, metal deactivators, tricresyl phosphate, etc.)

Regarding Claim 5.

Kenbeek discloses the limitations set forth above. Kenbeek also discloses an additive wherein the reactants are a dimer acid and neopentyl glycol (i.e. 2,2-dimethyl-1,3-propanediol) (P4 L5-6).

Kenbeek discloses the claimed composition it should inherently possess the same physical qualities of kinematic viscosity at 100°C of 900 to 4000 mm^2/s. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). This is further evidenced by

Marchand which discloses an ester used as a lubricant in engines (P1 C2 L57-59) comprising a polyester of dimeric acid and 2,2-dimethyl-1,3propanediol which has a viscosity of 2840 cSt at 98.9°C. (Note: 2840cSt = 2840 mm^2/s) (P4 L1-9)

Regarding Claims 18 and 20:

Kenbeek '013 discloses the limitations set forth above. The rejection to claim 2 is expressly incorporated herein. Kenbeek '013 discloses an automotive engine oil and antiwear additive system as follows:

Kenbeek '013 discloses the antiwear additive system comprising the reaction product of neopentyl glycol, 2-ethylhexanol and Pripol 1009 dimer acid (P3 L48-P4 L10 Example 1).Kenbeek discloses the composition in a lubricant base (P3 L22-26) meeting the limitation for a base oil (P4 L17-20 wherein the ester is blended with an ester lubricant base). Kenbeek '013 discloses the composition used in a diesel engine (P2 L42-45 Kurt Orbahn testing DIN 51 382)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 2-5, 7, 9-10, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (US 6,462,001).

Regarding Claims 2-5, 7, 9-10 and 16-17.

Kenbeek '001 discloses an ester additive and an antiwear system which may be used in multi-grade gear oil with mineral oil or polyalphaolefins (C6 L5-10) automotive engine oil comprising a base oil (C9 L2-4 esters used with other base mineral oils) and an antiwear additive system (C4 L53-55) comprising an ester which is the reaction product of

(a) at least one polyfunctional alcohol; (C6 L17)

(b) a dimer fatty acid; (C6 L20-25) and

(c) at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms or 7 to 24 carbons (a monocarboxylic acid having from 7 to 22 carbons falling within the claimed range) and an aliphatic monofunctional alcohol having 5 to 24 carbon atoms (C6 L35-40 monofunctional alcohol having 14 to 24 carbons falling within the claimed range) with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s or 900-4000 mm^2/s (C6 L38-41 KV 30-1000 mm^2/s overlapping the claimed ranges) and a non- polarity index (NPI) NPI = total number of carbon atoms * molecular weight number of carboxylate groups x 100 of at least 500. Kenbeek discloses the claimed composition. As such, it will intrinsically possess the same physical

characteristics including NPI value of at least 500. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best,* 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). See MPEP 2144.05(I): "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976)."

Kenbeek '001 discloses the dimer fatty acid having a dimer content of 95% or more (C3 L52-57) meeting the limitation for a dimer fatty acid having a dimer content of greater than 94%.

A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao,* 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Thus the intended use of the composition as an automotive engine oil comprising and an antiwear additive system is not afforded patentable weight since the recitation of an intended use does not impart patentability to otherwise old compounds or compositions. *In re Tuominen*, 671 F.2d 1359, 213 USPQ 89 (CCPA 1982).

Kenbeek '001 also discloses that additional additives may be incorporated into the lubricant composition such as sulphur or phosphorus containing EP/AW additive which are well known in the art. (C4 L38-45) meeting the limitations of claims 9-10.

Regarding Claims 15, 18-20:

Kenbeek '001 discloses the limitation set forth above. The rejection of claim 2 under Kenbeek '001 as set forth above is expressly incorporated herein. As such the ester reaction product has been disclosed meeting the limitation of claim 18 for an additive system. Kenbeek '001 discloses the ester may be used in base fluids such as polyalphaolefins (C8 L45-50) meeting the limitation of claim 18 for a base oil and claim 19 for an oil having a phosphorous level of no more than 0.08% (PAO has no phosphorous and other additives are optional and not required). Kenbeek '001 discloses the composition formulation of the complex ester additive with PAO thereby meeting the limitation for adding the ester to the oil.

Kenbeek '001 also discloses the composition for use in lubrication application such as gear oils, four stroke oils (C1 L12-16) Kenbeek '001 discloses the composition may be used as an additive (C4 L54) and is suitable for automotive gear oils, four stroke oils, fuel additives, etc. and multigrade gear oils (C4 L62-68 and C5 L12). Kenbeek '001 discloses the composition is suitable for heavy duty commercial vehicles and for passenger cars (C5 L36-40) .Kenbeek discloses the ester lubricating composition overcomes problems associated with other products when used in a process for lubricating two stroke or rotary engines. (C1 L30-35 and C1 L58-68) As such, Kenbeek

'001 discloses the method of addition of an automotive engine oil comprising a base oil and the claimed ester.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (US 6,462,001) a applied to claims 2-5, 7, 9, 16-20 above further in view of Shaub et al. (US 4,479,883)

Regarding Claim 11

Kenbeek '001 discloses the limitations set forth above. Kenbeek also discloses that additional additives may be incorporated into the lubricant composition such as sulphur or phosphorus conaining EP/AW additive which are well known in the art. (C4 L38-45)

Kenbeek '001 does not expressly disclose the further antiwear additive is zinc dialkyldithiophoshate.

Shaub et al. discloses a lubricating oil composition containing an ester of polycarboxylic acid and glycol with a metal dithiocarbamate improves friction reducing properties while retaining other desired lubricant properties. (C2 L5-16). Shaub discloses the ester to be from a dimer fatty acid and an ethylene glycol (C4 L43-45 and C4 L43). Shaub further discloses the metal dithiocarbamate to be zinc dialkyl dithiophosphate. (C6 L16).

It would have been obvious to a person having ordinary skill in the art at the time of invention to add the zinc dialkyl dithiophosphate to the ester composition of Kenbeek '001as Kenbeek '001 contemplates an antiwear additive comprising sulphur and

phosphorous and doing so would improve the friction reducing properties of the composition of Kenbeek '001 while maintaining the other lubricant qualities.

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (US 6,462,001) as applied to claims 2 , 3, 4, 7, 9, and 16 above, and further in view of Young et al. (US 3,202,701)

Regarding Claim 21.

Kenbeek '001 discloses the limitations set forth above. Kenbeek also discloses an ester formed with neopentyl glycol as the polyfunctional alcohol (C3 L16-18) and a dimer acid. (P3 L62) and a C9-C18 polyfunctional carboxylic acid. (C2 L56-60).

Kenbeek '001 does not expressly disclose to the oil wherein the resultant ester is the reaction product of the neopentyl glycol with dimer acid and azeleic acid.

Young et al. discloses a complex ester of a mixture of acids and neopentyl glycol which produces a lubricant which remains haze free at low temperatures and has heat stability with good viscosity. (C2 L30-37 and L53) The ester is formed by either a one state or two stage reaction (C4 L10-11). Young et al. discloses that the acid mixtures may comprise dicarboxylic acid and azelaic acid (C2 L56-65).

It would have been obvious to a person having ordinary skill in the art at the time of invention to add azelaic acid of Young et al to the reaction mixture of Kenbeek '001 as Young teaches that said acid is useful in a complex ester mixture and will reduce haze at low temperature and impart heat stability with good viscosity.

11. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (EP 0335013) as evidenced by Marchand et al. (GB1390439) and as

evidenced by Croda Product Overview as applied to claims 2 and 9 above, and further in view of Shaub et al. (US 4,479,883)

Regarding Claims 10 and 11

Kenbeek discloses the limitations set forth above. Kenbeek also discloses that additional additives may be incorporated into the lubricant composition such as such as antioxidants, anticorrosion, metal deactivators, tricresyl phosphate, etc. (P3 L40-43)

Kenbeek does not expressly disclose the further antiwear additive is both a phosphorus-containing and sulphur-containing additive or wherein the antiwear additive is zinc dialkyldithiophoshate.

Shaub et al. discloses a lubricating oil composition containing an ester of polycarboxylic acid and glycol with a metal dithiocarbamate improves friction reducing properties while retaining other desired lubricant properties. (C2 L5-16). Shaub discloses the ester to be from a dimer fatty acid and an ethylene glycol (C4 L43-45 and C4 L43). Shaub further discloses the metal dithiocarbamate to be zinc dialkyl dithiophosphate. (C6 L16).

It would have been obvious to a person having ordinary skill in the art at the time of invention to add the zinc dialkyl dithiophosphate to the ester composition of Kenbeek as doing so would improve the friction reducing properties of the composition of Kenbeek while maintaining the other lubricant qualities.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (EP 0335013) as evidenced by Marchand et al. (GB1390439) and as evidenced by

Croda Product Overview as applied to claim 2 above, and further in view of Shaub et al. (US 4,459,223).

Regarding Claims 15.

Kenbeek discloses the limitations set forth above. Kenbeek discloses the limitations of claim two which are incorporated herein thus disclosing the antiwear additive system, an automotive engine oil with base oil and ester reaction product.

Kenbeek does not expressly disclose a method of reducing wear in an automotive engine by the use of the additive, the use of an automotive engine oil, the use of an antiwear additive system, the method of reducing wear by addition of automotive engine oil, an automotive engine comprising an automotive engine oil and antiwear additive system.

Shaub et al. discloses a lubricating oil composition for use in internal combustion engines and method of lubricating said engines to reduce friction with an additive which is the reaction product of a dimer of carboxylic acid and polyhydric alcohol (Abstract).

It would have been obvious to a person having ordinary skill in the art at the time of invention to use the composition of Kenbeek in an automobile engine to impart antifriction qualities and improve engine wear as Shaub discloses that esters prepared from the reaction of a dimer of carboxylic acid and a polyhydric alcohol are effective friction reducers in automobile engines.

13. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over over Kenbeek (EP 0335013) as evidenced by Marchand et al. (GB1390439) and as

evidenced by Croda Product Overview as applied to claim 2 above, and further in view of Kenbeek et al. (US 6,462,001B1) hereinafter referred to as Kenbeek '001)

Regarding Claim 2.

Kenbeek EP 0335013 discloses the limitations set forth above. The rejection of Claim 2 under Kenbeek as set forth above is expressly incorporated herein.

Kenbeek discloses an automotive engine oil comprising a base oil (Abstract and P2 L46-47 synthetic lubricant base) and an antiwear additive system comprising an ester (P2 L52-55 polyester additive) which is the reaction product (P3 L50-58 disclosing the reactants and an esterification process) of

(a) at least one polyfunctional alcohol; (P3 L1 glycol, neopentylglycol)

(b) a dimer fatty acid; and (P2 L52-53 and P3 L60-62)

(c) 2-ethyl hexanol P3 L53 (meeting the claimed carbon range of C_5 to C_{24}) (P3 L6-11) with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non- polarity index (NPI) NPI = total number of carbon atoms x molecular weight number of carboxylate groups x 100 of at least 500).

Kenbeek discloses the dimer fatty acid having a dimer content of 95% or more (C3 L52-57) meeting the limitation for a dimer fatty acid having a dimer content of greater than 94%.

Kenbeek does not expressly disclose:

(c) at least one of an aliphatic dicarboxylic acid having 5 to 18 carbon atoms, an aliphatic monocarboxylic acid having 5 to 24 carbon atoms and an aliphatic

monofunctional alcohol having 5 to 24 carbon atoms with the resultant ester having a kinematic viscosity at 100 °C ranging from 500 to 5000 mm^2/s and a non-polarity index (NPI) NPI = total number of carbon atoms * molecular weight number of carboxylate groups x 100 of at least 500.

Kenbeek '001 discloses an ester from a reaction of a polyfunctional alcohol, a dimer fatty acid and a monofunctional alcohol having at least 14 carbons (thus overlapping the claimed range of 5 to 24) or an aliphatic monocarboxylic acid having from 7 to 14 carbons (C2 L62-67 thus falling within the claimed range of 5 to 24 carbons) and having a resulting kinematic viscosity at 100°C of 30 to 1000cSt (i.e. 30 to 1000 mm^2/s) thus overlapping the claimed range. (Abstract) See MPEP 2144.05(I): "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);"

Kenbeek '001 also discloses that complex esters will have improved properties may be obtained by using chain stopping agents in the production of the complex ester so as to reduce or remove the number of free alcohol and or carboxylic acid groups in the ester and so terminate the esterfication process. (C1 L58-65).

It would have been obvious to a person having ordinary skill in the art at the time of invention to add the chain stopping agent so as to reduce or remove the number of free alcohol and or carboxylic acid groups in the ester and terminate the esterification process and impart improved properties to the composition of Kenbeek.

Modified Kenbeek discloses the claimed composition. As such, it will intrinsically possess the same physical characteristics including NPI value of at least 500. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

14. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (EP 0335013) as evidenced by Marchand et al. (GB1390439) and as evidenced by Croda Product Overview as applied to claim 2 above, and further in view of Young et al. (US 3,202,701)

Regarding Claim 21.

Kenbeek discloses the limitations set forth above. Kenbeek also discloses an ester formed with neopentyl glycol and a dimer acid. (P3 L62).

Kenbeek does not expressly disclose to the oil wherein the resultant ester is the reaction product of the neopentyl glycol with dimer acid and azeleic acid.

Young et al. discloses a complex ester of a mixture of acids and neopentyl glycol which produces a lubricant which remains haze free at low temperatures and has heat stability with good viscosity. (C2 L30-37 and L53) The ester is formed by either a one state or two stage reaction (C4 L10-11). Young et al. discloses that the acid mixtures may comprise dicarboxylic acid and azelaic acid (C2 L56-65).

It would have been obvious to a person having ordinary skill in the art at the time of invention to add azelaic acid of Young et al to the reaction mixture of Kenbeek as

Young teaches that said acid is useful in a complex ester mixture and will reduce haze at low temperature and impart heat stability with good viscosity.

15. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kenbeek (EP 0335013) as evidenced by Marchand et al. (GB1390439) and as evidenced by Croda Product Overview as applied to claims 2- 4, 6-7, 9, 16, 18 and 20 above.

Regarding Claim 19:

Kenbeek '013 discloses the limitations set forth above. The rejection to claim 2 is expressly incorporated herein.

Kenbeek '013 discloses the antiwear additive system comprising the reaction product of neopentyl glycol, 2-ethylhexanol and Pripol 1009 dimer acid (P3 L48-P4 L10 Example 1).Kenbeek discloses the composition in a lubricant base (P3 L22-26) meeting the limitation for a base oil and for adding the ester composition (P4 L17-20 wherein the ester is blended with an ester lubricant base). Kenbeek '013 discloses the composition used in a diesel engine (P2 L42-45 Kurt Orbahn testing DIN 51 382 as such it is added to the engine. The examiner notes that a diesel engine meets the limitation for an automotive engine). The base oil is an ester lubricant base such as glycerol tri-n-heptanoate, trimehtylolpropane, 2-ehtylhexyl dodecanoate (P3 L26-33) and will therefore have a phosphorus level of no more than 0.08%.

Response to Arguments

16. Applicant's arguments filed June 3, 2009have been fully considered but they are not persuasive.

17. Applicant argues none of the references teach or suggest forming an ester form the components specified in the claims. Kenbeek '001 discloses an ester resulting form an esterification reaction between a polyfunctional alcohol, a polyfunctional carboxylic acid and a dimerised fatty acid as more fully set forth above. (Abstract).

18. Applicant argues the esters do not disclose the properties of the ester as claimed. Kenbeek '013 discloses a polyester prepared by reacting a dimer acid, a dicarboxylic acid and neopentyl glycol. (P3 L46-53) As such, both references expressly disclose an ester formed form the claimed components. Since the esters are the same esters as claimed and are made by the same or similar processes, they will inherently possess the same physical characteristics and properties including non-polarity index and antiwear qualities. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

19. Applicant argues the reference Kenbeek '001 teaches away from the new claim limitation of dimer content greater than 94% by weight. Applicant's interpretation of the reference is not accurate. The reference discloses that the dimer acid should not be the sole polycarboxylic acid component when used with certain additive packages

comprising sulphur and phosphorous. (C2 L27-33). Kenbeek '001 discloses the use of an additional polycarboxylic non dimerised acid to overcome this problem. The reference discloses the amount of dimerised acid to non dimerised acid as 80%, not the dimer content of the dimer acid. The claim is addressed to the dimer content of the dimer acid, not the amount of the dimer acid used to form the ester. Kenbeek '001 discloses the dimer content may be 95% or more meeting the limitation. (C3 L35-44)

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAMELA WEISS whose telephone number is (571)270-7057. The examiner can normally be reached on Mon.-Thur. 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PW

/Glenn A Caldarola/
Acting SPE of Art Unit 1797